

Application Serial No. 10/715,623
Reply to Office Action of September 26, 2008

PATENT
Docket: CU-3456

DEC 24 2008

Amendments to the Claims

The listing of claims presented below replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) An optical disk apparatus capable of recording a signal on an optical disk by directing an optical beam thereon at a plurality of recording speeds which are different from each other at the same radius, said apparatus comprising:

a condition measuring position storing part that stores condition measuring positions at which a condition of the signal is measured for each of the recording speeds; and

a signal condition measuring part that measures the condition of the signal, which condition of the signal is used for write power compensation, by suspending a recording operation at the condition measuring positions stored in said condition measuring position storing part, wherein, in said condition measuring position storing part, the condition measuring positions for a recording speed whose level is one level lower than a level of a predetermined recording speed are set to positions shifted for a predetermined time from respective corresponding condition measuring positions for the predetermined recording speed, and said optical disk apparatus is configured to perform WPC, said WPC being carried out during recording by interrupting recording at a predetermined position, verifying the condition measured by the signal condition measuring part, correcting the recording power or reducing the recording speed in accordance with the status of the verified recording condition, and then restarting recording,

wherein verifying the condition measured by the signal condition measuring part comprises:

obtaining a peak value and a minimum value of the signal recorded at a time before the predetermined position of interrupting the signal;

utilizing the peak value and the minimum value to determine whether the recording power of the signal recorded at predetermined time before the position of interrupting the

Application Serial No. 10/715,623
Reply to Office Action of September 26, 2008

PATENT
Docket: CU-3456

recording operation is within a predetermined range.

2. (original) The optical disk apparatus as claimed in claim 1, wherein the predetermined time is set to a time interval from when the predetermined recording speed is changed to the lower level recording speed until the recording operation is stabilized after the recording operation is resumed at the lower level recording speed.

3. (original) The optical disk apparatus as claimed in claim 2, wherein the predetermined time is set to two minutes in absolute time that is set to the optical disk in advance.

4. (currently amended) A condition measuring method of measuring a condition of a signal recorded on an optical disk by an optical disk apparatus capable of recording the signal on the optical disk by directing an optical beam thereon at a plurality of recording speeds which are different from each other at the same radius, said method comprising the steps of:

setting second condition measuring positions for a second recording speed whose level is one level lower than a level of a predetermined recording speed to positions that are shifted for a predetermined time from first condition measuring positions for the predetermined recording speed; and

measuring the condition of the signal, which condition of the signal is used for write power compensation, by suspending a recording operation at the first and the second condition measuring positions at the predetermined recording speed and the second recording speed, respectively, **and verifying the measured condition by obtaining a peak value and a minimum value of the signal recorded at a time before the position of suspending the recording operation and utilizing the peak value and the minimum value to determine whether a recording power of the signal recorded a second predetermined time before the position of suspending the recording operation is within a predetermined range.**

Application Serial No. 10/715,623
Reply to Office Action of September 26, 2008

PATENT
Docket: CU-3456

5. (original) The condition measuring method as claimed in claim 4, wherein the predetermined time is a time interval from when the predetermined recording speed is changed to the second recording speed until the recording operation is stabilized after the recording operation is resumed at the second recording speed.

6. (original) The condition measuring method as claimed in claim 5, wherein the predetermined time is set to two minutes in absolute time that is set to the optical disk in advance.

7. (previously presented) A condition measuring position setting method of setting a condition measuring position at which a condition of a signal recorded on an optical disk is measured by an optical disk apparatus capable of recording the signal on the optical disk by focusing an optical beam thereon at a plurality of recording speeds which are different from each other at the same radius, said method comprising the steps of:

arbitrarily setting first condition measuring positions for a maximum recording speed;

setting second condition measuring positions for a second recording speed whose level is one level lower than a level of the maximum recording speed to positions that are shifted for a predetermined time from the respective first condition measuring positions; and

when setting third condition measuring positions for a third recording speed whose level is lower than the level of the second recording speed, setting the third condition measuring positions to positions that are shifted for the predetermined time from respective measuring positions of a recording speed whose level is one level higher than the level of the third recording speed.

8. (original) The condition measuring position setting method as claimed in claim 7, wherein the predetermined time is a time interval from when a predetermined recording speed is changed to a one level lower recording speed until a recording operation is stabilized after the recording operation is resumed at the lower level recording speed.

Application Serial No. 10/715,623
Reply to Office Action of September 26, 2008

PATENT
Docket: CU-3456

9. (original) The condition measuring position setting method as claimed in claim 8, wherein the predetermined time is set to two minutes in absolute time that is set to the optical disk in advance.